Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original) An implantable prosthesis of shape generally similar to that of a spinal intervertebral disc, comprised of a biocompatible elastomer with a mechanical elasticity less than about 100 megaPascals, with an ultimate strength in tension generally greater than about 100 kiloPascals, that exhibits the flexibility to allow at least 2 degrees of rotation between the top and bottom faces with torsions greater than 0.01 N-m without failing.

2. (Original) A prosthesis according to Claim 1 wherein the device has ultimate strength to withstand a compressive load greater than 1 MegaPascals.

3. (Original) A prosthesis according to Claim 1 wherein the material used for the device has a mechanical ultimate strength greater than 5 MPa.

4. (Original) A prosthesis according to Claim 1 wherein the device is made of a single solid elastomeric material.

5. (Original) A prosthesis according to Claim 1 wherein the elastomer has a mechanical elasticity greater than 1.0 MPa.

6. (Original) A prosthesis according to Claim 1 wherein the elastomer has a mechanical elasticity less than 20 MPa.

7. (Original) A prosthesis according to Claim 1 wherein device has a mechanical elasticity less than 10 MPa and greater than 200 KPa.

8. (Original) A prosthesis according to Claim 1 wherein elastomer has a mechanical elasticity that is not constant.

9. (Original) A prosthesis according to Claim 1 wherein the delivered size of the prosthesis can expand at least 5% in at least one dimension over one day, in saline.

10. (Original) A prosthesis according to Claim 1 wherein the delivered size of the prosthesis can expand at least 50% in at least one dimension in vivo without injection of material.

11. (Original) A prosthesis according to Claim 1 wherein the delivered size of the prosthesis can expand at least 20% over one day in at least one dimension in vivo and can generate a cranial-caudal force of greater than 1 Newton.

12. (Original) A prosthesis according to Claim 1 wherein the delivered size of the prosthesis can expand at least 100% by a combination of springs and elastomeric components.

13. (Original) A prosthesis according to Claim 1 that is further modified to provide specific surface characteristics.

14. (Original) A prosthesis according to Claim 13 wherein the surface characteristics are physically or biochemically modified to provide enhanced adhesion to a vertebral body.

15. (Original) A prosthesis according to Claim 13 wherein the surface includes, in part, a fabric.

16. (Original) A prosthesis according to Claim 13 wherein the surface includes, in part, a metal solid or mesh.

17. (Original) A prosthesis according to Claim 13 wherein the surface includes, in part, a porous structure with undercuts.

18. (Original) A prosthesis according to Claim 13 wherein the surface includes, in part, a rough surface greater than 5 nanometers.

19. (Original) A prosthesis according to Claim 13 wherein the surface includes, in part, a bioactive molecule.

20. (Original) A prosthesis according to Claim 1 wherein the surface characteristics of the prosthesis are modified to provide cellular ingrowth.

21. (Original) A prosthesis according to Claim 1 wherein the surface characteristics are biochemically modified to provide enhanced water transport.

22. (Original) A prosthesis according to Claim 1 wherein the surface characteristics are physically modified to provide enhanced chemical transport.

23. (Original) A prosthesis according to Claim 1 wherein the device is made of a single elastomer with elasticity between 0.2 and 5 megaPascals with tab extensions for fixation to the adjacent vertebral bodies.

24. (Original) A prosthesis according to Claim 1 wherein the disc is composed of a material that contains a ring of continuous fiber.

25. (Original) A prosthesis according to Claim 1 that contains appendages to allow for physical attachment to the vertebral body and to prevent dislodgement of part in situ.

26. (Original) A prosthesis according to Claim 1 wherein the material is a cryogel.

27. (Original) A prosthesis according to Claim 1 wherein the material is a composite material composed of more than one substance.

28. (Original) A prosthesis according to Claim 1 that is a permanent implantable medical device.

29. (Original) A sterile prosthesis according to Claim 1 wherein the body is manufactured as an oval or kidney shape for use as a spinal disc prosthesis that expands 20% in

height when placed in normal saline solutions, has exposed fibers on the cranial and caudal surfaces, has a body composed of a biocompatible elastomer compressive modulus between 1.5MPa and 10 MPa, ultimate compressive strength greater than 1 MPa, ultimate tensile stretch greater than 25% in one direction, and contains fabric extensions from the body for attachment to the sides of the vertebrae.

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Original) An implantable spinal disc body having a superior surface and an inferior surface joined by a circumferential surface comprised of a biocompatible elastomer with a mechanical elasticity less than about 100 megaPascals and an ultimate strength in tension greater than about 100 kiloPascals.

35. (Original) The implantable spinal disc body of claim 34 wherein the implantable spinal disc superior and inferior surfaces are of a kidney shaped and formed by an extended oval surface and an indented surface, and wherein the cross-section of the implantable spinal disc is substantially rectangular.

36. (Original) The implantable spinal disc body of claim 34, wherein the periphery of the superior and inferior surfaces is substantially flat.

37. (Original) The implantable spinal disc body of claim 34, wherein the superior and inferior surfaces have a roughness index of between about 1 nm and about 2 mm in height.

38. (Original) The implantable spinal disc body of claim 37, wherein the circumferential surface has a roughness index of less than 1 mm.

39. (Original) The implantable spinal disc body of claim 34, wherein the implantable spinal disc body is at least partially surrounded by an attachment extension member having a plurality of superior and inferior tabs connected to a band member for attachment of the implantable spinal disc to adjacent superior and inferior vertebral surfaces, respectively.

40. (Original) The implantable spinal disc body of claim 34, wherein the superior and inferior surfaces are covered with a surface treatment to promote attachment to the adjacent vertebral bodies.

41. (Original) The implantable spinal disc body of claim 34, wherein the superior and inferior surfaces are provided with a plurality of pores to promote tissue ingrowth.

42. (Original) The implantable spinal disc body of claim 34 wherein the anterior portion of the implantable spinal disc body is of greater thickness than the posterior portion.

43. (Original) An implantable spinal disc body of biocompatible elastomer material having a mechanical elasticity less than about 100 megaPascals and an ultimate strength in tension greater than about 100 kiloPascals, comprising:

a substantially concave superior surface having a substantially flat periphery surface;

a substantially convex inferior surface having substantially flat periphery;

the superior and inferior surfaces being joined by a circumferential surface; and

the implantable spinal disc body being further characterized as being of a kidney shape formed by an extended oval surface and an indented portion, having a substantially rectangular cross-section, and having an anterior portion of greater thickness than the posterior portion.

44. (Original) The implantable spinal disc body of claim 43 wherein the superior and inferior surfaces have a roughness index of between about 1 nm and about 2 mm in height and the circumferential surface has a roughness index of less than 1 mm.

45. (Original) The implantable spinal disc body of claim 43 further comprising:

an attachment extension band member at least partially surrounding the circumferential surface of the implantable spinal disc body; and

a plurality of superior and inferior tabs extending from said attachment extension band member for attachment of the implantable spinal disc body to adjacent superior and inferior vertebral surfaces, respectively.